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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,206	03/07/2000	Larry S. Yaeger	112007-0022	9553
24267	7590	04/26/2005	EXAMINER	
CESARI AND MCKENNA, LLP			LE, BRIAN Q	
88 BLACK FALCON AVENUE			ART UNIT	
BOSTON, MA 02210			PAPER NUMBER	
			2623	
DATE MAILED: 04/26/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/520,206

Applicant(s)

YAEGER ET AL

Examiner

Brian Q Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 3, 19 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-18, 20-29 and 31-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment and Arguments

1. Applicant's amendment filed November 26, 2004, has been entered and made of record.
2. Applicant's arguments with regard to claims 1-2, 4-18, 20-29, and 31-36 have been fully considered, but are not considered persuasive because of the following reasons:

Regarding the claim 1, the Applicant argues (bottom of page 11) that the art of record fails to teach a "reference context" received from a client application and the Applicant further argues that the previous Office Action rejected this argument stating that the claim's language did not recite that the "reference context" is received from a client application. The Examiner respectfully disagrees. Previous Non-Final Office Action filed on July 28, 2004 clearly indicated that the claim language involved "reference context" is too broad and thus is subjected to interpretations by one skilled in the art (please refer back to page 2 of the previous Office Action). The Examiner also cited portions of MPEP to help the Applicant with the claim language. In addition, Beernink U.S. Patent No. 5,682,439 teaches reference context received from a client application (pop-up corrector software/module) (column 3, lines 66-67). The Applicant also argues (page 12) that Beernink does not teach the ink strokes are unrecognized strokes. Please refer back to previous Office Action for the rebuttal of the argument regarding this subject matter. Also, please refer back to column 12, lines 65-67 through column 13, lines 1-5 for the teaching of unrecognized stroke (unrecognized character).

Thus, the rejections of all of the claims are maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-18, 20-29, and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Altman U.S. Patent No. 5,517,578 and Beernink U.S. Patent No. 5,682,439.

Referring to claim 1, Altman teaches a system for managing ink information in a computer system (Abstract) having a pen-based input tablet (FIG. 1, element 16), the system comprising:

A pen driver (program routine) (column 3, lines 60-67) coupled to the pen-based input/display table and configured to collect and organize the ink information entered at the pen-based input tablet into ink strokes (column 4, lines 1-10);

An ink memory area organized into one or more ink phrase data structures (memory blocks to store ink strokes) (column 4, lines 14-19); and

An ink manager (PenPoint OS) (FIG. 1, element 24) coupled to the pen driver for receiving the ink strokes (column 4, lines 1-11), the ink manager having an ink phrase termination engine configured to examine the ink information collected by the pen driver and, upon detecting the occurrence of an ink phrase termination event (ending indication) (column 8, lines 55-67), to identify a respective end of an ink phrase to the ink manager (column 16, lines 5-12),

Whereby the ink information (stroke parsing routines and writing routines translate ink information from ink strokes) entered at the pen-based input table is associated with a client

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applicant (Operating System or User Interface routines/module/program/application) (column 4, lines 1-15), and ink manager stores the ink strokes (FIG. 4, element 71) received prior to the ink phrase termination event (Altman stores new stroke into a buffer before determine the bounds/the ending of the stroke in the store ink phrase data structure) (FIG. 4, element 72) in a selected ink phrase data structure (column 4, lines 14-19).

Altman does not explicitly teach the response in receiving from the client application a reference context affiliated with the un-recognized ink strokes of the ink phrase, associates the reference context with the ink strokes. Beernink further teaches the system wherein the ink manager (software which processes ink words) (column 10, lines 12-13), in response to receiving from the client application a reference context (pop-up corrector software/module) (column 3, lines 66-67) affiliated with the un-recognized ink strokes (unrecognized character) (column 12, lines 65-67 through column 13, lines 1-5) of the ink phrase, associates the reference context with the ink strokes (FIGs. 5-7). Modifying Altman's method of managing ink information according to Beernink would be able to provide list of potential ink strokes so that users will be able to correct the un-recognized ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

Regarding claim 2, Altman teaches the system wherein the ink manager, in response to the occurrence of an ink phrase termination event, is configured to pass the recognized ink strokes of the respective ink phrase to the client application (column 4, lines 1-15). However, Altman does not teach the ink manager that configured to pass the un-recognized ink strokes of the respective ink phrase to the client application. Beernink teaches the concept wherein the

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manager (Palm System) (column 4, lines 61-65) configured to pass the un-recognized ink strokes of the respective ink phrase to the client application (Graphical User Interface software or tablet display) (column 5, lines 66-67) (FIG. 5). Modifying Altman's method of managing ink information according to Beernink would be able to predict and able to correct the un-recognized ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

Referring to claim 4, Beernink also teaches the system wherein the ink manager associates the reference context with the ink-recognized ink strokes by appending the reference context with the selected ink phrase data structure (FIG. 9, element 262).

For claim 5, Altman continues to teach the system wherein the ink phrase termination engine is configured to initiate a time-out of each ink stroke (time duration for each ink stroke) (column 7, lines 40-43) and further wherein the termination engine identifies the occurrence of an ink phrase termination event (as disclosed in claim 1) when the time-out expires before the next sequential ink stroke is detected.

And claim 6, Altman also teaches the system wherein the time-out has a value that is settable (predetermined amount of time) by a user of the computer system (column 5, line 17).

Regarding claim 7, Altman teaches the system wherein the pen-based input table has a surface and the ink information generated by the tablet includes out-of-proximity (proximity) data corresponding to the pen being lifted above the surface of the tablet, and further wherein the termination engine detects the occurrence of an ink phrase termination event (disclosed in claim 1) upon detecting out-of-proximity data from the tablet (column 6, lines 41-52).

Regarding claim 8, Beernink continues to teach the system comprising:

One or more handwriting recognition engines (column 10, lines 8-16) for generating hypotheses (guesses) based on the ink information entered at the pen-based table; and

A handwriting recognition manager coupled to both the ink manager and the one or more handwriting recognition engines, the handwriting recognition manager configured and arranged to coordinate operation of one or more handwriting recognition engines (basically is a broad description of the architecture of the described system) (FIG. 1), wherein

The ink strokes received at the ink manager are passed to the handwriting recognition manager (column 10, lines 10-13), and

The ink manager notifies the handwriting recognition manager of the occurrence of each ink phrase termination event and, in response, the handwriting recognition manager directs a selected handwriting recognition engine to generate one or more hypotheses for the ink strokes corresponding to the respective ink phrase (column 10, lines 8-16 and 23-30). Modifying Altman's method of managing ink information according to Beernink would provide numerous guesses for the user to select the correct writing stroke from the un-recognized ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of ordinary skill in the art to modify Altman according to Beernink.

Regarding claim 9, Altman further teaches the system wherein the handwriting recognition manager in cooperation with the selected handwriting recognition engine employs a word segmentation model to the ink strokes as they are received by the ink manager and, in response to determining that a given ink stroke represents a new word (column 2, line 52), is permitted to issue an ink phrase termination signal to the ink manager (column 4, line 53 and column 6, line 31-32).

Referring to claim 10, Altman also teaches the system wherein

The client application is configured to define at least one data entry field for display on the table and to establish corresponding boundary (bounding box) coordinates (column 3, lines 22-24 and 39-41) for the at least one data entry field, and

The termination engine identifies the occurrence of an ink phrase termination event when an ink stroke or portion thereof is outside of the boundary coordinates for the at least one data entry field (column 7, lines 25-30 and column 8, lines 28-36).

Regarding claim 11, Beernink further teaches the system wherein the one or more hypotheses are provided to the client application (column 9, lines 25-50). Modifying Altman's method of managing ink information according to Beernink would allow the user to use the client application to process and correct the un-recognized ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

For claim 12, Beernink further discloses the system wherein the ink manager in response to receive from the client application a reference context (column 5, lines 55-60) affiliated with the un-recognized ink strokes of the ink phrase, associates the reference context with the ink strokes (FIG. 5 and FIG. 6), and

In response to a request by the client application, returns the affiliated reference context to the client application together with the one or more hypotheses (FIGs. 5-6).

Referring to claim 13, Beernink teaches the system in response to receiving an indication that the client application has consumed the un-recognized ink strokes, the ink manager directs the handwriting recognition manager not to generate (Beernink teaches the popup corrector can

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be select so show the list of hypotheses. Therefore if the popup correct is not selected, then there is no generation of hypotheses) one or more hypotheses for the ink strokes (column 10, lines 17-19).

Regarding claim 14, Beernink teaches the system wherein in response to receiving the un-recognized ink strokes, the client application establishes a corresponding recognition context for the ink strokes, and the handwriting recognition manager receives the recognition context and directs the selected handwriting recognition engine to utilize the recognition context in generating the one or more hypotheses (FIGs. 5-6).

For claim 15, Beernink teaches the system wherein the one or more hypotheses generated by the selected handwriting recognition engine utilizing the recognition context from the client application are provided to the client applicant (column 5, lines 55-60 and FIGs. 5-6).

Regarding claim 16, Altman teaches a method for managing ink information (Abstract) in a computer system having a pen-based input tablet (FIG. 1, element 16) that may include an integrated display (FIG. 1, element 14) for generating ink information as a pen is moved across the tablet, the method comprising the steps of:

Receiving the ink information generated by the input tablet (FIG. 1, element 16);

Identifying the pen is lifted from the tablet so as to organize the ink information into corresponding ink strokes (column 6, lines 45-52);

Organizing the ink strokes into one or more ink phrases (column 6, lines 53-63) as defined by one or more ink phrase termination (ending points) events (column 16, line 5); and

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In response to receiving a reference context from a client application affiliated with the un-recognized ink strokes of the ink phrase, associating the reference context with the ink strokes (please refer back to the teaching and explanation of claim 1).

Referring to claim 17, Altman teaches the step of organizing comprises the steps of:

Examining the ink information to determine whether an ink phrase termination (leave the proximity) even has occurred (column 6, lines 45-52); and

In response to the occurrence of an ink phrase termination even, segregating the ink strokes received (gathering ink strokes) (FIG. 4A, element 71) prior to the termination event (bounds determination or ending points) in a designated ink phrase data structure.

For claims 18 and 20, please refer back to claims 1 and 2 respectively for the explanation.

Referring to claim 21, please refer to claims 8 and 14 for the explanation.

For claim 22, please refer back to claim 7 for further explanation.

Regarding claim 23, please refer back to claims 16 and 10 respectively for the explanation. In addition, Altman teaches the comparing the ink information from the input tablet with the bounding coordinates of the one or more data entry fields (column 11, lines 22-28).

For claims 24-26, please refer back to claims 9, 5, and 7 respectively for the explanation.

For claim 27, please refer back to claims 1, 16 and 17 for the explanation. Also, Altman teaches a computer readable medium (FIG. 1, element 30) containing executable program instructions (column 3, lines 60-64) to perform the claimed limitation.

Referring to claim 28, please refer back to claim 18.

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For claim 29, Beernink also teaches a method in response to receiving an indication that the client application has consumed the un-recognized ink strokes (column 10, lines 10-15), blocking recognition of the ink strokes (column 13, lines 1-5).

For claims 31-32, please refer back to claims 20-21 respectively for the explanations.

For claim 33, please refer back to claims 19 and 21 for the explanation.

For claim 34, please refer back to claims 27 and 21 respectively to for the explanation.

For claims 35-36, please refer back to claims 25 and 26 respectively for the explanation.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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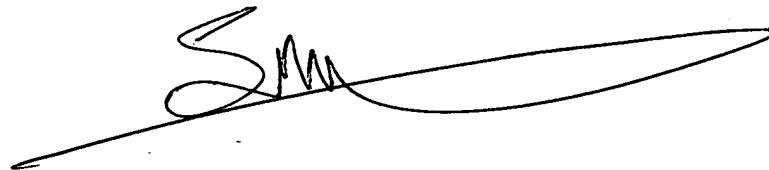
Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 571-272-7414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL
April 19, 2005

A handwritten signature in black ink, appearing to read 'Samir Ahmed', with a long horizontal flourish extending to the right.

**SAMIR AHMED
PRIMARY EXAMINER**